
NELSON COUNTY

(Nelson County Water Service Area Map)

- Estimated 1999 population of 36,300--91% on public water
- Estimated 2020 population of 48,600--93% on public water
- 360 miles of water lines, with plans for 50 additional miles
- Estimated funding needs for public water 2000-2005--\$2,220,000
- Estimated funding needs for public water 2006-2020--\$290,000

Nelson County had an estimated population of 34,277 (13,000 households) in 1999 with a projected population of 48,600 (20,000 households) in 2020. Public water is provided to over 90 percent of the county's residents. In areas of the county not served by public water, about half the households rely on private domestic wells and half the households rely on other sources. About 325 customers will be added to public water service through new line extensions in 2000-2020.

Estimated Costs - Proposed Projects, 2000-2005

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
NELSON								
LaRue County Water district #1	11	67	325				850	1,175
Bardstown Municipal Water	34	250	1,045					1,045
TOTAL	45	317	1,370				850	2,220

Estimated Costs - Proposed Projects, 2006-2020

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
NELSON								-
Bloomfield	5	6	290					290
LaRue County Water district #1								-
Bardstown Municipal Water								-
TOTAL	5	6	290				-	290

PUBLIC WATER SYSTEMS

The Nelson County water service system is unlike any of the other counties in the Lincoln Trail Area Development District. There are currently six water service distributors in the county: the City of Bardstown, the City of New Haven, the City of Bloomfield, North

WATER SERVICE AREAS

NELSON COUNTY

Kentucky

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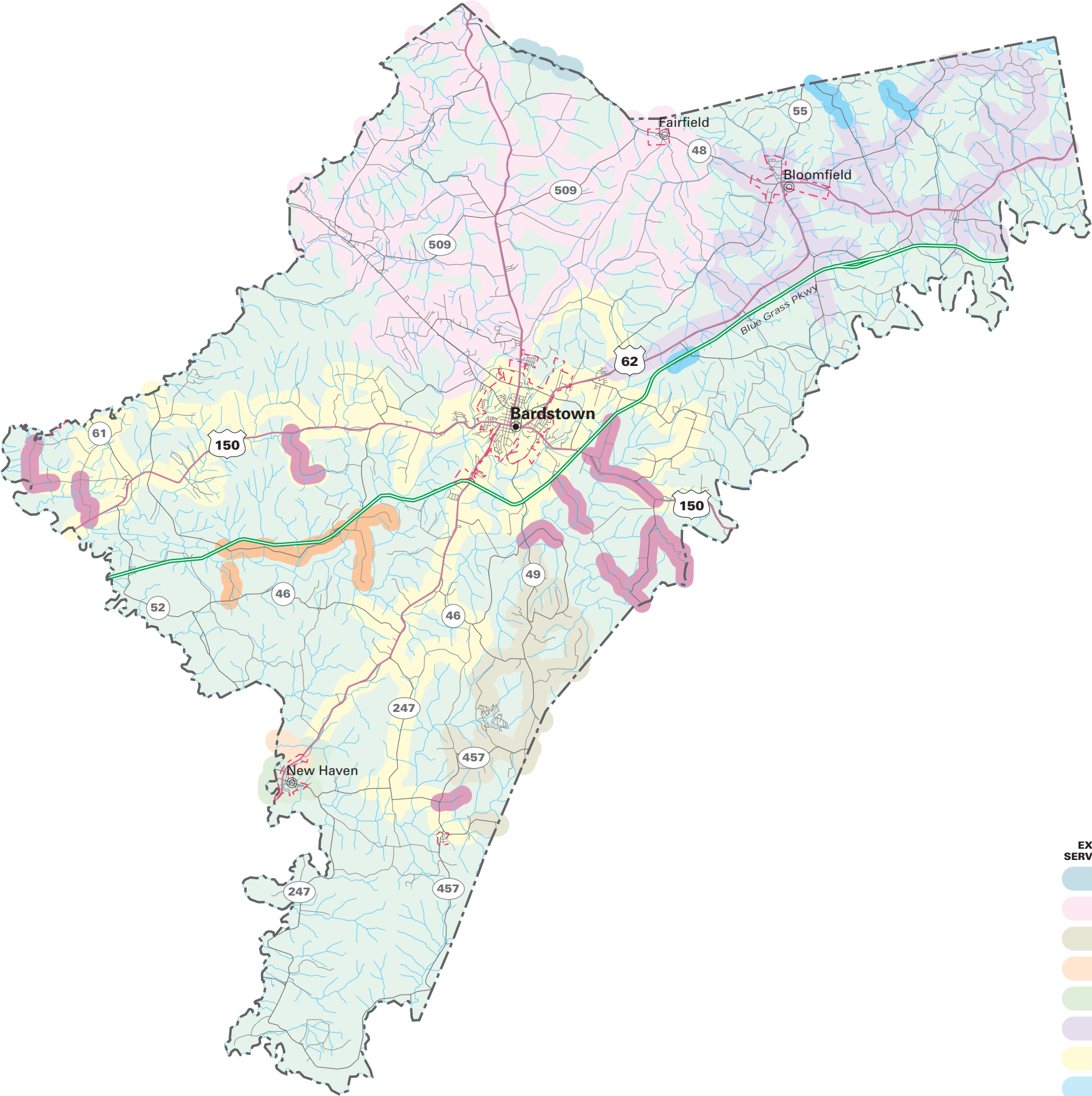
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WATER SERVICE STATUS BY OWNER

EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		TAYLORSVILLE WATER WORKS
		NELSON COUNTY WATER DISTRICT
		MARION COUNTY WATER DISTRICT
		LARUE COUNTY WATER DISTRICT #1
		CITY OF NEW HAVEN
		CITY OF BLOOMFIELD
		CITY OF BARDSTOWN
		BLOOMFIELD WATER AND SEWERAGE DEPARTMENT
		BARDSTOWN MUNICIPAL WATER DEPARTMENT



Nelson Water District, Marion County Water District and Larue County Water District #1. There are also 4 non-community systems.

As the county is provided water by so many different entities, some of which are not headquartered in the county a different approach was necessary to undertake a plan for future expansion. The first step was to get an overall, countywide, perspective. After contacting the local Water Districts, the County Judge/Executive and the County Engineer, a plan of action was derived for the entire county. Roads within the county that currently do not have water service were indicated on a map. Of these areas there were primarily three projects as each would be under the jurisdiction of a separate entity. The total cost of the projects is approximately \$1.5-\$2.0 million, while serving approximately 250 customers with approximately 34 miles of water line. As indicated during the initial discussions, these are the only roads in the County that currently do not have service, all of them can be served; therefore, there are no areas in the County that can not be served.

Of the six water entities in Nelson County, the City of New Haven, North Nelson Water District and Marion County Water District have no anticipated expansions. Marion County Water District is currently expanding into a small portion of Nelson County.

LARUE COUNTY WATER DISTRICT #1

Larue County Water District purchases its water from two primary sources: the City of Hodgenville, Green River Valley Water District with four additional sources: the City of Bardstown, the City of New Haven, the City of Campbellsville and Hardin County Water District #2. According to the respective Water Supply Plans they have an adequate supply of water. Two of the water districts that provide water to Larue County residents operate their own water treatment plants. The City of Hodgenville Water Treatment Plant has a treatment capacity of 500,000 gallons per day. In 1995 the plant treated an average of 406,000 gallons per day, or roughly at 81% capacity. The City of Hodgenville is currently in the process of upgrading its water treatment plant, this should alleviate any problems with diminished capacity. The Green River Valley Water District Treatment Plant has a treatment capacity of 4.0 million gallons per day and averaged 2,692,589 gallons treated per day or roughly 67% of capacity. As these are the two primary sources of water for Larue

County Water District #1 and as a whole they are adequate enough to account for treated water for the LCWD #1, it would be too cumbersome to include the other sources. The District's storage system consists of five storage tanks located at various points within its service area. The total storage capacity of the district is 513,000 gallons. The calculated charge for 4,000 gallons of treated water (residential usage) is currently \$21.78 which, when compared to the other Water Districts within Lincoln Trail ADD, is considered quite reasonable.

The water district is currently undertaking a project that will bring water to the Howardstown area of Nelson County. At this time they are adding new roads to that project. Currently, within the Larue County Water District #1 Service Area in Nelson County there are a total of six roads with inhabitants that do not currently have water service. Working with the Nelson County Fiscal Court and the people of Nelson County, it is the goal of Larue County Water District #1 to serve these people.

BLOOMFIELD WATER AND SEWERAGE DEPARTMENT

PWSID: 0900031
System Type: COMMUNITY
Owner Type: MUNICIPAL
Surface Source:
Purchase Source:
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD): 0.00
Percent Daily Average Production: 0.00
Total Tank Storage Capacity (gallons): 485,000.00
Total Service Connections: 1,201.00
Number of Employees: 3.00
Treatment Operator Class: 2D
Distribution Operator Class:
Customer Rate for 1,000 Gallons: 4.66
O/M costs 1997: Not available
O/M costs per Service Connection: Not available
Net Revenue 1997: Not available
Total Water Produced 1997 (gallons): Not available
Water Sold 1997 (gallons): Not available
Unaccounted-for Water 1997 (%): Not available

The City of Bloomfield purchases its water from the City of Bardstown. According to the Nelson County Water Supply Plan, they have an adequate supply of water. The City of Bloomfield currently serves 1,201 customers in their service area. The Bardstown Municipal

water treatment plant has a treatment capacity of six million gallons per day. In 1997 the plant treated an average of 4.5 million gallons per day, or roughly at 75% capacity. The city's storage system consists of two storage tanks located at various points within its service area. The total storage capacity of the city is 485,000 gallons. The calculated charge for 4,000 gallons of treated water (residential usage) is currently \$15.25 within the city limits and \$22.05 outside the city limits, which when compared to the other municipal systems within Lincoln Trail ADD, is considered reasonable.

The city is currently undertaking a \$1,319,462 project that will bring water to several roads in the Bloomfield Service area of Nelson County. The project consists of 31.6 miles of line and 126 new customers. When this project is complete, the total number of customers will be approximately 1,327.

BARDSTOWN MUNICIPAL WATER DEPARTMENT

PWSID:..... 0900017
System Type:..... COMMUNITY
Owner Type:..... MUNICIPAL
Surface Source:..... SYMPSON LAKE
Purchase Source:
Well Source:
Sells Water to: LEBANON JUNCTION WATER WORKS
Treatment Plant Capacity (MGD):..... 6.00
Percent Daily Average Production:..... 75.00
Total Tank Storage Capacity (gallons):..... 4,000,000.00
Total Service Connections: 12,000.00
Number of Employees:..... 5.00
Treatment Operator Class:..... 3D
Distribution Operator Class:..... 4A
Customer Rate for 1,000 Gallons:..... 2.46
O/M costs 1997:..... Not available
O/M costs per Service Connection: Not available
Net Revenue 1997:..... Not available
Total Water Produced 1997 (gallons):..... Not available
Water Sold 1997 (gallons):..... Not available
Unaccounted-for Water 1997 (%): Not available

Bardstown Municipal Water Department obtains its water from Sympson Lake. Bardstown Municipal Water Department serves approximately 12,000 customers in the City of Bardstown, Nelson County, Washington County and Hardin County. According to the Nelson County Water Supply Plan, Bardstown has an adequate supply of water. The Bardstown Municipal Water Treatment Plant has a treatment capacity of six million gallons

per day. In 1997 the plant treated an average of 4.5 million gallons per day, or roughly at 75% capacity. The Water Department's storage system consists of 11 storage tanks located at various points within its service area. The total storage capacity of the district is 3,953,400 gallons. The calculated charge for 4,000 gallons of treated water (residential usage) is currently \$8.51 within the city limits and \$11.14 outside the city limits which, when compared to the other water districts within Lincoln Trail ADD, is considered very reasonable.

Currently the Water Department is considering expansion to several rural areas of Nelson County. Currently there are 12,000 customers of the Bardstown Municipal Water Department, after expansion, there should be approximately 170 additional customers.

NEW HAVEN MUNICIPAL WATER WORKS

PWSID: 0900312
System Type:..... COMMUNITY
Owner Type: MUNICIPAL
Surface Source:
Purchase Source:
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD):..... 0.00
Percent Daily Average Production:..... 0.00
Total Tank Storage Capacity (gallons): 209,000.00
Total Service Connections: 534.00
Number of Employees:..... 4.00
Treatment Operator Class: 1D
Distribution Operator Class:
Customer Rate for 1,000 Gallons:..... Not available
O/M costs 1997:..... Not available
O/M costs per Service Connection: Not available
Net Revenue 1997: Not available
Total Water Produced 1997 (gallons):..... Not available
Water Sold 1997 (gallons): Not available
Unaccounted-for Water 1997 (%): Not available

NORTH NELSON COUNTY WATER DISTRICT

PWSID: 0900323
System Type:..... COMMUNITY
Owner Type: WATER DISTRICT
Surface Source:
Purchase Source:
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD):..... 0.00
Percent Daily Average Production:..... 0.00

Total Tank Storage Capacity (gallons):	0.00
Total Service Connections:	2,724.00
Number of Employees:.....	4.00
Treatment Operator Class:	2D
Distribution Operator Class:	
Customer Rate for 1,000 Gallons:.....	3.21
O/M costs 1997:.....	483,037.00
O/M costs per Service Connection:	198.29
Net Revenue 1997:	2,195.00
Total Water Produced 1997 (gallons):.....	0.00
Water Sold 1997 (gallons):.....	187,880,500.00
Unaccounted-for Water 1997 (%):	13.01

MARION COUNTY WATER DISTRICT

The Marion County Water District purchases its water from the City of Lebanon, which in turn gets its water from the Rolling Fork River and Fagan Branch Reservoir. According to the Marion County Water Supply Plan, Rolling Fork River and Fagan Branch Reservoir have an adequate supply of water to support any future needs. The District currently services 4,276 customers in Marion County and a small portion of Nelson County. The City of Lebanon water treatment plant has a production capacity of approximately 4.0 million gallons per day. On the average, the plant produces approximately 2.0 million gallons per day. Approximately 55% of the design capacity is in use. The district's storage system consists of five storage tanks located at various points within its service area. The total storage capacity of the district is 728,000 gallons, not including the storage capacity of the City of Lebanon. A proposed project includes a 250,000-gallon storage tank that will increase capacity to 978,000 gallons. The calculated charge for 4,000 gallons of treated water (residential usage) is currently \$20.70 which, when compared to the other water districts within Lincoln Trail ADD, is considered quite reasonable. The system had operating and management cost of \$880,283 and net revenue of \$107,469 for the period 12/31/96 - 12/31/97. The system purchased 364,525,000 gallons and sold 299,202,000 gallons for the period 12/31/96 - 12/31/97. Overall system losses were 18% for the same period. Operating and management costs per service connection are \$215.

OTHER SYSTEMS

ST. MARTIN DEPORRES DOMINICAN COMMUNITY

St. Martin Deporres Dominican Community is located in Nelson County. The system serves a population of 55 and has 2 service connections. The private, non-transient, non-community system has treatment capacity of 1,500 gallons per day. The water source is purchased from Gethsemani.

ST. ANNS SCHOOL

St. Anns School is located in Nelson County. The system serves a population of 40 and has 3 service connections. The local, non-transient, non-community system has treatment capacity of 10,000 gallons per day. The water source is wells.

HOWARDSTOWN MINI MART

Howardstown Mini Mart is located in Nelson County. The system serves a population of 50 and has 1 service connection. The private, transient, non-community system has treatment capacity of 6,000 gallons per day. The water source is wells.

ST. ROSE SCHOOL/DEPORRES DOMINICAN COMMUNITY

St. Rose School/Deporres Dominican Community is located in Nelson County. The system serves a population of 55 and has 1 service connection. The private, non-transient, non-community system purchases water from Bardstown.

PRIVATE DOMESTIC SYSTEMS

About 3,500 people in Nelson County rely on private domestic water systems, about half on wells, and half on other sources.

In the larger valley bottoms of the Rolling Fork and Beech Fork of the Salt River, most drilled wells in the valley will produce enough water for a domestic supply at depths of less than 100 feet. Wells located in the rest of the larger valleys throughout the county will produce enough water for a domestic supply except during dry weather. In the upland areas of Nelson County, which encompasses approximately 70% of the county, most drilled wells will not produce enough water for a dependable domestic supply except along drainage lines that may produce enough water except during dry weather.

Throughout the county ground water is hard or very hard and may contain salt or hydrogen sulfide, especially at depths greater than 100 feet.
